Reviewer's report

Title: Socio-economic class, rurality and risk of cutaneous melanoma by site and gender in Sweden.

Version: 1 Date: 28 July 2007

Reviewer: Erika Richtig

Reviewer's report:

General
In this manuscript Pérez-Gómez et al. analyse the relative risk of melanoma in Swedish male and female workers with special regards to socio-economic status, town size, gender and site.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1) There have been several publications concerning the clustering of melanoma in higher socio-economic groups in Sweden, which are not mentioned in the reference list (e.g. Hemminki et al.: Level of education and the risk of cancer in Sweden, Cancer Epidemiol 2003; Hemminki et al.: socio-economic factors in cancer in Sweden, Int J Cancer 2003). Those publications use the Swedish Family Cancer Database including the Swedish Cancer Registry, as this manuscript does also.

The authors should state the difference in their findings with regard to those publications in the discussion.

2) The same authors have already published the occupational risks by anatomic site of men and women in Sweden. What is new in this manuscript?

3) The method is not described clearly enough: the authors should explain, if they have taken all melanomas (also melanomas in situ?) or only invasive melanomas.

For me it is not clear when the melanomas in the Swedish working population were diagnosed: after the census 1970? or between 1960 and 1970 and followed up after 1971? Because, if melanomas occurred later, occupation and residence might have been changed since the census 1970.

Was the occupation and residence re-evaluated at time of melanoma diagnosis?

4) The geographical areas (Northern Sweden, Central Sweden and Southern Sweden) were mentioned in the methods, but in the results the geographical areas and their influence as environmental regular sun exposure markers are missing. Was there an influence on melanoma sites? Especially for the lower limb in women and head/neck melanomas, as the lack of influence of socio-economic class and town size on head/neck melanomas is one of the most
clear results of the study.

5) Authors should give some data on the melanomas, available by the Swedish Cancer Registry like shown in other publications (e.g. Lindholm et al.; invasive cutaneous malignant melanoma in Sweden 1990-1999, Cancer 2004): tumor thickness, ulceration with regard to location, gender and town size.

6) In the discussion section, last paragraph, authors should state a possible bias when taking only workers in their analysis and not state "to study melanoma incidence patterns by socio-economic risk and rurality..."

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1) Table 1 should be changed in "all cases" as cutaneous melanomas with multiple sites (several melanomas in the same patients?) and non-specified locations should be abandoned.

2) There should be a Table 2 with specific melanoma data (tumor thickness with regard to site, gender and occupation).

3) Reference list should be shortened and Swedish publications (see major revisions) should be included.

Discretionary Revisions (which the author can choose to ignore)

Please list the contribution of each author.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests.